

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	16	(calculat\$5 with (collision adj rate))	USPAT	OR	ON	2005/04/18 13:30
L2	8	(calculat\$5 with (collision adj rate)) and (network with collision)	USPAT	OR	ON	2005/04/18 13:46
L4	18	(US-5706462-\$ or US-5819028-\$ or US-5864558-\$ or US-5974237-\$ or US-6078568-\$ or US-6078591-\$ or US-6115393-\$ or US-6222850-\$ or US-6529520-\$ or US-6574241-\$ or US-6584177-\$ or US-6587453-\$ or US-6651099-\$ or US-6697013-\$ or US-6700876-\$ or US-6704284-\$ or US-6718384-\$ or US-6754176-\$).did.	USPAT	OR	ON	2005/04/18 13:31
L5	2	(calculat\$5 with (collision adj rate)) and (network with collision) and (contention with window)	USPAT	OR	ON	2005/04/18 13:33
L6	3	(calculat\$5 with (collision adj rate)) and (network with collision) and (contention with window)	US-PGPUB	OR	ON	2005/04/18 13:34
L7	0	(calculat\$5 with (collision adj rate)) and (network with collision) and (contention with window)	EPO	OR	ON	2005/04/18 13:34
L8	0	(calculat\$5 with (collision adj rate)) and (network with collision) and (contention with window)	JPO	OR	ON	2005/04/18 13:34
L9	0	(calculat\$5 with (collision adj rate)) and (network with collision) and (contention with window)	DERWENT	OR	ON	2005/04/18 13:35
L10	0	(calculat\$5 with (collision adj rate)) and (network with collision) and (contention with window)	IBM_TDB	OR	ON	2005/04/18 13:35
L11	6	(detect\$5 with (collision adj rate)) and (network with collision)	USPAT	OR	ON	2005/04/18 13:46
L12	3	(detect\$5 with (collision adj rate)) and (network with collision) and contention	USPAT	OR	ON	2005/04/18 13:46
L13	3	(detect\$5 with (collision adj rate)) and (network with collision) and (contention with window)	USPAT	OR	ON	2005/04/18 13:48
L14	0	(detect\$5 with (collision adj rate)) and (network with collision) and (contention with window)	EPO	OR	ON	2005/04/18 13:48
L15	0	(detect\$5 with (collision adj rate)) and (network with collision) and (contention with window)	JPO	OR	ON	2005/04/18 13:48
L16	0	(detect\$5 with (collision adj rate)) and (network with collision) and (contention with window)	DERWENT	OR	ON	2005/04/18 13:48
L17	0	(detect\$5 with (collision adj rate)) and (network with collision) and (contention with window)	IBM_TDB	OR	ON	2005/04/18 13:48
L18	3	(detect\$5 with (collision adj rate)) and (network with collision) and (contention with window)	US-PGPUB	OR	ON	2005/04/18 13:48

L19	1080	370/414,447,458,461.ccls.	USPAT	OR	ON	2005/04/18 14:02
L20	3421	709/224,230,232.ccls.	USPAT	OR	ON	2005/04/18 14:04
L21	4494	19 20	USPAT	OR	ON	2005/04/18 14:04
L22	153	21 and (collision same contention)	USPAT	OR	ON	2005/04/18 14:04
L23	0	21 and (((calculat\$5 or detect\$4 or rate) with collision) same (contention adj window))	USPAT	OR	ON	2005/04/18 14:05
L24	2	21 and (collision same (contention adj window))	USPAT	OR	ON	2005/04/18 14:06


[Home](#) | [Login](#) | [Logout](#) | [Access Information](#) | [Alerts](#) |

Welcome United States Patent and Trademark Office

Search Results[BROWSE](#)[SEARCH](#)[IEEE XPLORE GUIDE](#)

Results for "(((collision<paragraph>contention<paragraph>window)<in>metadata)) <and> (pyr >= 1950 <and> pyr <= 2002))"

e-mail

Your search matched 2 of 1144303 documents.

A maximum of 100 results are displayed, 100 to a page, sorted by Relevance in Descending order.

[» View Session History](#)[» New Search](#)

Modify Search

[» Key](#)

IEEE JNL IEEE Journal or Magazine

☐ Check to search only within this results set

IEEE JNL IEEE Journal or Magazine

Display Format: ☒ Citation ☐ Citation & Abstract

IEEE CNF IEEE Conference Proceeding

Select Article Information

IEEE CNF IEEE Conference Proceeding

☐ 1. Performance analysis of the collision avoidance procedure of the advanced Infra CSMA/CA protocol for wireless LANs

Vitsas, V.; Boucouvalas, A.C.;
Vehicular Technology Conference, 2002. VTC Spring 2002. IEEE 55th
Volume 3, 6-9 May 2002 Page(s):1502 - 1506 vol.3

[AbstractPlus](#) | Full Text: [PDF](#)(568 KB) IEEE CNF

IEEE STD IEEE Standard

☐ 2. IEEE 802.11 distributed coordination function (DCF): analysis and enhancement
Haitao Wu; Shiduan Cheng; Yong Peng; Keping Long; Jian Ma;
Communications, 2002. ICC 2002. IEEE International Conference on
Volume 1, 28 April-2 May 2002 Page(s):605 - 609
[AbstractPlus](#) | Full Text: [PDF](#)(428 KB) IEEE CNF
 indexed by
[Help](#) [Contact Us](#) [Privacy & ;](#)

© Copyright 2005 IEEE --



[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)

Search: ☒ The ACM Digital Library ☐ The Guide

collision contention window +abstract:collision +abstract:cont



THE ACM DIGITAL LIBRARY



[Feedback](#) [Report a problem](#) [Satisfaction survey](#)

Terms used

[collision contention window](#) [collision contention window](#)

Found 5 of 15,334 searched out of 60,681.

Sort results by

relevance



[Save results to a Binder](#)

[Try an Advanced Search](#)

[Try this search in The ACM Guide](#)

Display results

expanded form



[Search Tips](#)

☐ Open results in a new window

Results 1 - 5 of 5

Relevance scale ☐ ☐ ☐ ☐ ☐

1 [Performance analysis of the advanced infrared \(AIr\) CSMA/CA MAC protocol for wireless LANs](#)

V. Vitsas, A. C. Boucouvalas

September 2003 **Wireless Networks**, Volume 9 Issue 5

Full text available: pdf(205.62 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Advanced Infrared (AIr) is a proposed standard of the Infrared Data Association (IrDA) for indoor infrared LANs. AIr Medium Access Control (MAC) employs Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) techniques with Request To Send/Clear To Send (RTS/CTS) frame exchange to address the hidden station problem. A long Collision Avoidance Slot (CAS) duration, that includes the beginning of the CTS frame, is defined to cope with collisions caused from hidden stations. AIr MAC employ ...

Keywords: CSMA/CA, IrDA, optical wireless, performance evaluation, wireless LANs

2 [Network protocols: An M/MMGI/1/K queuing model for IEEE 802.11 ad hoc networks](#)

Mustafa Özdemir, A. Bruce McDonald

October 2004 **Proceedings of the 1st ACM international workshop on Performance evaluation of wireless ad hoc, sensor, and ubiquitous networks**

Full text available: pdf(202.27 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

An M/MMGI/1/K queuing model is developed for the analysis of IEEE 802.11 DCF using RTS/CTS. Results are based on arbitrary contention conditions, namely, collision probabilities, transmission probabilities and contention window sizes vary arbitrarily among nodes contending for channel access. This is fundamentally different from earlier work. Results are presented for the fully-connected case and validated via simulation with statistical analysis. The main contributions are the analysis of DCF a ...

Keywords: IEEE 802.11, performance analysis, queueing theory

3 [System design methodologies: ESACW: an adaptive algorithm for transmission power reduction in wireless networks](#)

Hang Su, Peiliang Qiu, Qinru Qiu

August 2004 **Proceedings of the 2004 international symposium on Low power electronics and design**

Full text available:  [pdf\(158.46 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper we propose a new algorithm for reducing the energy dissipation of a wireless ad-hoc network. We first show that the performance and energy dissipation is a function of the probability of packet collision, which can be varied by changing the minimum contention window (CWmin) parameter. Then we propose an algorithm, based on the IEEE 802.11 protocol, which can dynamically adjust CWmin for better performance and power. Experimental results show that, comparing to ...

Keywords: distributed coordination function, low power, wireless ad hoc network

4 [Performance of ad hoc networks: A bidirectional multi-channel MAC protocol for improving TCP performance on multihop wireless ad hoc networks](#)

Tianbo Kuang, Carey Williamson

October 2004 **Proceedings of the 7th ACM international symposium on Modeling, analysis and simulation of wireless and mobile systems**

Full text available:  [pdf\(210.93 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The TCP protocol often suffers from performance problems in conventional single-channel multihop wireless ad hoc networks. The problems arise from hidden node and exposed node issues, which can lead to channel contention in the forward direction between TCP DATA packets that are part of the same TCP flow control window, as well as contention between TCP DATA and TCP ACK packets flowing in opposite directions. In this paper, we propose and evaluate a novel bidirectional multi-channel MAC protocol ...

Keywords: TCP performance, multihop wireless ad hoc networks, ns-2, simulation

5 [ESACW: An Adaptive Algorithm For Transmission Power Reduction In Wireless Networks](#)

Hang Su, Peiliang Qiu, Qinru Qiu

August 2004 **Proceedings of the Proceedings of the 2004 International Symposium on Low Power Electronics and Design (ISLPED'04) - Volume 00**

Full text available:  [Publisher Site](#) Additional Information: [full citation](#), [abstract](#)

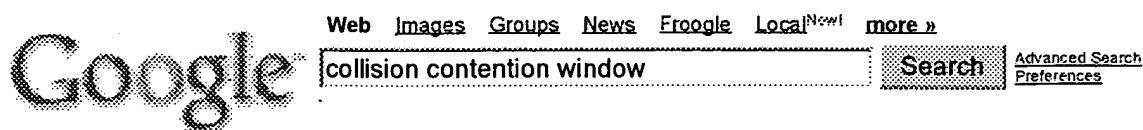
In this paper we propose a new algorithm for reducing the energy dissipation of a wireless ad-hoc network. We first show that the performance and energy dissipation is a function of the probability of packet collision, which can be varied by changing the minimum contention window (CWmin) parameter. Then we propose an algorithm, based on the IEEE 802.11 protocol, which can dynamically adjust CWmin for better performance and power. Experimental results show that, comparing to the original protocol ...

Keywords: Wireless ad hoc network, low power, distributed coordination function

Results 1 - 5 of 5

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2005 ACM, Inc.
[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads:  [Adobe Acrobat](#)  [QuickTime](#)  [Windows Media Player](#)  [Real Player](#)



Web

Results 1 - 100 of about 45,200 for collision contention window. (1.04 seconds)[PDF] A TCP-like adaptive contention window scheme for WLAN ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

... adaptive contention window adjustment algorithm for 802.11. WLAN. We present simulation and ... light collision, the window goes to a lower level. ...

www.mcl.ie.cuhk.edu.hk/wlan_icc_june_2004.pdf - [Similar pages](#)[PDF] Dynamic Contention Window for Quality of Service in IEEE 802.11 ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

... successful, a collision is considered to have occurred. In this case, the CW is doubled, ... reassigns and reshapes the contention window of different ...

[www.szabist.edu.pk/NCET2004/Docs/Session%20I%20Paper%20No%203%20\(P%2012-16\).pdf](http://www.szabist.edu.pk/NCET2004/Docs/Session%20I%20Paper%20No%203%20(P%2012-16).pdf) - [Similar pages](#)[PDF] LA-DCF: A New Multiple Access Protocol for Ad-Hoc Wireless ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

... used in the doubling of the contention window after collision detection in. CSMA/CD.) This new contention window ...

www.cs.ucl.ac.uk/staff/R.Akester/DCF-la.pdf - [Similar pages](#)[PDF] A Probability-based Algorithm to Adjust Contention Window in IEEE ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

... that 802.11 DCF resolve collision through Contention Window (CW) and back-off stage. In the initial back-off stage (stage 0), the value of CW has the ...

comp.uark.edu/~ogwang/Papers/ICCCAS04.pdf - [Similar pages](#)[PDF] An effective collision resolution mechanism for wireless LAN ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

... see that 802.11 DCF resolve collision through Contention Window (CW) and back-off stage (Fig. 2(a)). In the initial back-off stage (stage 0), ...

comp.uark.edu/~ogwang/Papers/ICCNMC03.pdf - [Similar pages](#)[PDF] Modified Backoff Algorithms for DFWMAC's Distributed Coordination ...

File Format: PDF/Adobe Acrobat

... backoff window mechanism, that causes unequal collision probability distribution ... position of the selected slot within the contention window. ...

www.tkn.tu-berlin.de/publications/papers/backoff-new.pdf - [Similar pages](#)[PS] Modified Backoff Algorithms for DFWMAC's Distributed Coordination ...File Format: Adobe PostScript - [View as Text](#)

... backoff window mechanism, that causes unequal collision probability distribution ... on the position of the selected slot within the contention window. ...

www.tkn.tu-berlin.de/publications/papers/backoff-new.ps - [Similar pages](#)[PPT] Medium Access with Carrier Sense Multiple Access with Collision ...File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Carrier Sense Multiple Access Collision Avoidance (802.11) in which each unit senses ... control achieved by dynamically adjusting contention window cw ...

www.cs.ucla.edu/classes/winter04/cs117/chap7/wlanRvsc.ppt - [Similar pages](#)[PPT] Medium Access with Carrier Sense Multiple Access with Collision ...File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... In case of collision, the entire packet transmission time is wasted ... Congestion control achieved by dynamically adjusting the contention window cw ...

www.cs.ucla.edu/classes/winter04/cs117/chapter7/wlan.ppt - [Similar pages](#)[[More results from www.cs.ucla.edu](#)][PPT] A Unified Interference/Collision Analysis for Power-Aware Adhoc ...File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) ...

Contention window should be initialized to a larger value than currently suggested ...

eeea2.sogang.ac.kr/class/2005_1/2005AdvancedTopic/presentation/A_Unified_Interference.ppt - [Similar pages](#)[PDF] A Novel MAC Protocol with Fast Collision Resolution for Wireless LANsFile Format: PDF/Adobe Acrobat - [View as HTML](#)

... (ie, a collision). In the FCR algorithm, the contention window size of a

station will increase not only when it experiences a ...

www.ieee-infocom.org/2003/papers/21_G3.PDF - Similar pages

[PDF] [A Unified Interference/Collision Analysis for Power-Aware Adhoc ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... both the energy consumed in collision resolution and the energy ... contention window should be set to a large initial value ...

www.ieee-infocom.org/2004/Papers/13_2.PDF - Similar pages

[PDF] [A Modified Time Synchronization Function in IEEE 802.11 Using ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... is the minimum contention window used in the backoff mecha- ... window to reduce the beacon collision probability among them, ...

www.ntu.edu.sg/home/s/pg04876832/icics03.pdf - Similar pages

[PDF] [DYNAMIC TUNING OF THE CONTENTION WINDOW MINIMUM \(CW\) FOR ENHANCED ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... assigning a short contention window to a high priority AC, ensures that in most cases, ... probability of a new collision as shown in equation (1): ...

team.tcom.ch/LGE/pimrc.pdf - Similar pages

[PDF] [paperhsnmc'04 final.fm](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... how the contention window of each priority i is set after each collision ... no collision in the past (ie, lower bound of the adaptive contention window ...

team.tcom.ch/LGE/cwmaxadaptation.pdf - Similar pages

[PPT] [Mesh Restoration: Agenda](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Random number is uniformly distributed over the contention window. Retry counter ... Carrier Sense multiple access with collision avoidance (CSMA/CA) ...

[ranger.uta.edu/~basu/cse6347_spring05/materials/5 IEEE802.11.ppt](http://ranger.uta.edu/~basu/cse6347_spring05/materials/5%20IEEE802.11.ppt) - Similar pages

[PPT] [Lecture 3](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... The contention window size is doubled whenever a collision occurs. A packet experiences 1 collisions 2i CWmin slots. IEEE 802.11 MAC Protocols ...

net.pku.edu.cn/mobile/L3-wirelessLAN.ppt - Similar pages

[PPT] [Testbed Results](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... if collision occurs (assume channel feedback, eg the receiver informs the source

... control achieved by dynamically choosing the contention window, CW ...

ecis.seattleu.edu/bkim/Seminars2003/SeminarNotes/JKim%20Part%20-%20SU%202003%20Seminar%20July%2014-16.ppt -

Similar pages

[PPT] [PowerPoint Presentation](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Carrier Sense Multiple Access with Collision Detection ... transmitting a packet, choose a backoff interval in the range [0,cw]; cw is contention window ...

www.cs.tut.fi/kurssi/83380/seminar2.pps - Similar pages

[PDF] [Microsoft PowerPoint - wireless-new.ppt](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... collision at B, A cannot detect the collision (CD fails) ... range [0,cw]; cw is contention window. Count down the backoff interval when medium is idle ...

www.cs.tut.fi/kurssi/8305010/luennot/wireless-new.pdf - Similar pages

[PPT] [QoS Provisioning in IEEE 802.11 LANs \(MTP First Stage Report\)](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Contention Window Parameters. Max. TXOP duration (TXOPLimit) ... All the calculations are dependent on collision probability ...

www.it.titb.ac.in/~kirang/academic/MTP/Firststage/MTPFirstStage1.ppt - Similar pages

[PDF] [QoS Provisioning in IEEE 802.11 LANs](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Contention Window Parameters. Max. TXOP duration (TXOPLimit) ... collision probability is dependent on CW. Hence CW parameters ...

www.it.titb.ac.in/~kirang/academic/MTP/Firststage/slides.pdf - Similar pages

[PDF] [MobiHoc Poster: DSCR – A Wireless MAC Protocol Using Implicit ...](#)

File Format: PDF/Adobe Acrobat

... resents contention window). This backoff counter corre- ... stage contention

resolution algorithm to reduce collision. probability and achieve better ...

portal.acm.org/ft_gateway.cfm?id=961200&type=pdf - [Similar pages](#)

[PDF] [A Hybrid Collision Avoidance Scheme for Ad Hoc Networks](#)

File Format: PDF/Adobe Acrobat

... contention they experience. Our hybrid collision avoidance scheme is built around the ... its fair share, the node doubles its contention window (CW) ...

portal.acm.org/ft_gateway.cfm?id=1012211&type=pdf - [Similar pages](#)

[[More results from portal.acm.org](#)]

[CMPUT 313, Assignment 2, Fall 2004 \[Initial DRAFT\] Comparison of ...](#)

... a contention-based, a limited contention and 2 collision-free protocols. ...

N. The contention window is equal to 1 slot (regardless of the value of N). ...

www.cs.ualberta.ca/~harms/COURSES/C313/C04/assignment2.html - 11k - [Cached](#) - [Similar pages](#)

[PPT] [Quality of service and mobility](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... collision. shortest backoff time. exponential. backoff. 10. Contention ...

Contention Window: uniform distribution [0, CW] * SLOT ...

www.eurecom.fr/~nikaeinn/madnet2003/perf-802_11-madnet-proct.ppt - [Similar pages](#)

[PPT] [Slide 1](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... If a collision occurs, stop and then start talking after a random back off time

... 802.11 Adaptive Contention Window. 802.11 adaptively sets cw ...

www.cnds.jhu.edu/research/networks/archipelago/class-slides/wireless-medium-access.ppt - [Similar pages](#)

[PDF] [Microsoft PowerPoint - wireless-medium-access.ppt](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... If a collision occurs, stop and then start talking after a. random back off time

... 802.11 Adaptive Contention Window. 802.11 adaptively sets cw ...

www.cnds.jhu.edu/research/networks/archipelago/class-slides/wireless-medium-access.pdf - [Similar pages](#)

[PPT] www.crhc.uiuc.edu/~kyasanur/presentations/misbehav...

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Possible Misbehavior. Backoff selected from smaller range than [0,CW].

Obtain higher transmission rate. Contention Window not doubled after collision ...

[Similar pages](#)

[PDF] [Homework 2 – Solution ECE 498NV Wireless Networks \(Fall 2004\) TA ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... throughput as we have identical contention window sizes for both nodes. ...

a packet in the same time-slot, we consider that collision occurs and the ...

www.crhc.uiuc.edu/~nhv/498nv/hw2_sol.pdf - [Similar pages](#)

[[More results from www.crhc.uiuc.edu](#)]

[Robust Broadcast](#)

... Of course, a higher number of nodes contending will yield a higher probability

of collision, and a higher contention window a lower collision rate. ...

www.hpl.hp.com/personal/Jean_Tourrilhes/Papers/Robust.Broadcast.html - 22k - [Cached](#) - [Similar pages](#)

[PDF] [Robust Broadcast: Improving the reliability of broadcast ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... and a higher contention window a lower collision rate. Section 6.2 details

simulations showing collision rate. for broadcast and unicast messages. ...

www.hpl.hp.com/personal/Jean_Tourrilhes/Papers/Robust.Broadcast.pdf - [Similar pages](#)

[[More results from www.hpl.hp.com](#)]

[PDF] [Medium access control protocols with fast collision resolution ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... contention cycle. To this end, many novel collision reso- ... creasing and

decreasing factors of the contention window ...

www.list.usf.edu/publications/kwon_fmacc_realtime.pdf - [Similar pages](#)

[PDF] [Enhancement of IEEE 802.11 Distributed Coordination Function with ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... time the packet is involved in a collision, contention window ... involved in

a collision, the contention window size for the ...

w3.arl.nist.gov/wctg/manet/docs/VTG2003_Backoff.pdf - [Similar pages](#)

[PPT] [CS219: Advanced Topics in Internet Research](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... the back-off counting down continues in the next contention window (fairness).

Contention window size doubles (to a max) when a collision occurs ...

cs.ua.edu/69thong/slides/lec2-macaw+mac+802.ppt - [Similar pages](#)

[PDF] **PowerPoint Presentation**

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Decreasing the collision probability at subsequent contention. periods ...

Use much smaller initial (minimum) contention window size ...

nnnet.cs.nthu.edu.tw/paper/ki/030410.pdf - [Similar pages](#)

[PDF] **Call Admission Control for IEEE 802.11 Contention Access Mechanism**

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... higher collision rates because of smaller contention window. size and higher transmission probability. Fig. 6 shows the ...

www.ee.unsw.edu.au/~timm/pubs/03globecom/published.pdf - [Similar pages](#)

[PPT] **Service differentiation mechanisms for IEEE 802.11-based wireless ...**

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA). ... CW = $2i \times CWO$, where CWO is the minimum contention window size. 6. March 15, 2005 ...

www.utdallas.edu/~ksrikant/pub_files/WCNC05/WCNC05.ppt - [Similar pages](#)

[doc] **1**

File Format: Microsoft Word 2000 - [View as HTML](#)

... When a collision is detected, the CW is doubled according to CW ... Each class differs by varying the minimum contention window (CWmin) and the ...

www.utdallas.edu/~skt02200/QOS%20report.doc - [Similar pages](#)

[PDF] **Evaluation of Quality of Service Schemes for IEEE 802.11 Wireless LANs**

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Upon detection of a collision, a. new backoff time is chosen and the backoff procedure starts. over. Because the contention window is exponentially in- ...

www.sm.luth.se/~csee/csn/publications/icn2001indgren.pdf - [Similar pages](#)

[PS] **Evaluation of Quality of Service Schemes for IEEE 802.11 Wireless ...**

File Format: Adobe PostScript - [View as Text](#)

... anduses a Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA)

... defining the minimum contention window, CWmin. Afterthe medium has been ...

www.sm.luth.se/~dugdale/publications/icn2001indgren.ps - [Similar pages](#)

An Effective Collision Resolution Mechanism for Wireless LAN

... p. 18 An Effective Collision Resolution Mechanism for Wireless LAN ...

the contention window to the initial value after each success transmission, ...

csdl.computer.org/comp/proceedings/iccnc/2003/2003/00/20330018abs.htm - [Similar pages](#)

Network Computing | Workshop | Infrastructure | Anatomy of IEEE ...

... and the beginning of the next frame is known as the contention window. ...

F and G) hears this response and is made aware of the potential collision, ...

www.networkcomputing.com/1115/1115ws22.html?is=NCJS_1115bt-61k - [Cached](#) - [Similar pages](#)

[PDF] **Microsoft PowerPoint - Chapt-06.ppt**

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Contention protocols resolve a collision after it occurs. ... backoff counter) within a contention window to wait before. transmitting its frame. ...

www.cs.gsu.edu/~cscyc/csc6221/Chapt-06.pdf - [Similar pages](#)

[PPT] **Channel Access Protocols**

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Because of the collision station A increments its contention window size and chooses a backoff time of 7. CWC. 802.11 DCF - Markov Chain Model ...

www.cs.gsu.edu/~csc221/ChannelAccessProtocols.ppt - [Similar pages](#)

[PDF] **Indoor WLAN Design**

File Format: PDF/Adobe Acrobat

... The MAC uses Carrier Sense Multiple Access with Collision Avoid- ... called the contention window or backoff window follows the. DIFS. Previous frame ...

www.kjhol.com/Standards/WIFI/WIFI-PDF/WLAN3ali.pdf - [Similar pages](#)

[PPT] **xanthippi.ceid.upatras.gr/courses/mobi_net/Lecture...**

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... IEEE 802.11 DCF: contention window cw is chosen dynamically depending on collision occurrence. Binary Exponential Backoff in DCF ...

[Similar pages](#)

[PDF] Enhanced Backoff Scheme in CSMA/CA for IEEE 802.11File Format: PDF/Adobe Acrobat - [View as HTML](#)

... throughput since it can decrease the chance of collision by adaptively adjusting the contention window. Third, the saturation throughput depends on ...

viola.usc.edu/newextra/Publication/PDF/VTC/2003F_VTC_Kuo.pdf - [Similar pages](#)[PDF] Improved priority access, bandwidth allocation and traffic ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

... contention window adjustment. The proposed collision resolution scheme separates and resolves collisions for different traffic ...

viola.usc.edu/newextra/Publication/PDF/selected/2003_IEEE-TS_Kuo.pdf - [Similar pages](#)Aperto Networks Solutions

... Most other TDMA systems use binary backoff for contention resolution, that blindly doubles the contention window with each collision. ...

www.apertonet.com/en/solutions/solutions/gaming.shtml - 21k - Apr 17, 2005 - [Cached](#) - [Similar pages](#)Lecture3: Advanced Computer Networks

... transmission if more than one node access the same medium, collision occurs.

... The contention window is divided into consecutively numbered slots. ...

www.cse.iitk.ac.in/users/braman/courses/cs625-fall2003/fac-notes/lec-notes03.html - 10k - [Cached](#) - [Similar pages](#)[PDF] Per-Flow Service Differentiation via Virtual MAC

File Format: PDF/Adobe Acrobat

... by adjusting the size of the Contention Window (CW) of each traffic class accordingly to ... variation, packet collision rate and packet loss rate. ...

www.sop.inria.fr/mistral/personnel/K.Avrachenkov/WiOpt/PDFfiles/domi4S.pdf - [Similar pages](#)[PDF] Modeling and Analysis of Slow CW Decrease for IEEE 802.11 WLANFile Format: PDF/Adobe Acrobat - [View as HTML](#)

... Since the contention window doubles after each collision, we can write W ... special case, since after a collision the contention window ...

www.sop.inria.fr/planete/chadi/PIMRC.pdf - [Similar pages](#)[PDF] Performance comparison of the IEEE 802.11 and Atr infrared ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

... contention. If an RTS collision occurs, the CAS window for the RTS retry is increased by an adjustment value. Following a successful transmission, ...

dec.bournemouth.ac.uk/staff/boucouveras/pgnet2k1.pdf - [Similar pages](#)[PDF] A Closed Queueing Network Model for Describing the Backoff ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

... contention window (CW. max.) size when a collision occurs, while it resets its CW to the minimum value (CW. min.) size after a ...

popeye.snu.ac.kr/publication/file/04ic_9.pdf - [Similar pages](#)[PPT] ECE/CS 4984: Lecture 1File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... but adopts collision avoidance, rather than collision detection ... types are associated with different inter frame spacing and contention window ...

www.intel.com/education/highered/Wireless/lectures/lecture_07_MAC.ppt - [Similar pages](#)[DOC] QoS Domain Agent based QoS control in Mobile Wireless InternetFile Format: Microsoft Word 2000 - [View as HTML](#)

... Access with Collision Avoidance) with binary slotted exponential backoff, ... except using the dynamic minimum Contention Window (CWmin) instead of ...

www.apan.net/2003_busan/31.doc - [Similar pages](#)CommsDesign - Inside 802.11e: Making QoS a Reality over WLAN ...

... While wired networks implement collision detection on the medium ... transmit will generate a random number within a range called the contention window. ...

www.commsdesign.com/design_corner/showArticle.jhtml?articleID=17000386 - 59k - [Cached](#) - [Similar pages](#)[PPT] Outline of TopicsFile Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Backoff Window. Contention Window. Next Frame. Defer Access ... point: the instance of the completion of a successful transmissions and/or a collision ...

www.eecs.wsu.edu/~dawn/Slides/protocol-anay.ppt - [Similar pages](#)[PDF] Performance of collision avoidance protocols in single-channel ad ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

... show that the sender-initiated collision-avoidance scheme ... MAC protocol in

which the contention window used in determining backoff time is fixed. ...

www.ieee-icnp.org/2002/papers/2002-7.pdf - Similar pages

[PDF] [Offered Load Control in IEEE802.11 Multi-hop Ad-hoc Networks](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... scenario favors node 4, and the chance of collision at node 2 can not be reduced even though ... contention window, since adjacent nodes can count down ...

www.cs.ucsb.edu/~ebelding/courses/595/s05/papers/offered_load.pdf - Similar pages

[Cisco Aironet Access Points](#)

... For each class of service, enter the maximum contention window value.

The minimum contention window value is doubled each time a collision occurs until ...

www.cisco.com/warp/public/779/smbiz/prodconfig/help/eag/122-15.JA/1400br/h_ap_services_qos-traffic.htm - 14k - Cached - Similar pages

[Cisco Aironet Access Points](#)

... For each access category, enter the maximum contention window value. The minimum contention window value is doubled each time a collision occurs until ...

www.cisco.com/warp/public/779/smbiz/prodconfig/help/eag/123-02.JA/1400BR/h_ap_services_qos-traffic.htm - 16k - Cached - Similar pages

[PDF] [ChaPLET: Channel-dependent Packet Level Tuning for Service ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Contention Window (CW). If the channel is idle for the backoff ... over a specified window. Since the probability of a collision decreases with each ...

esdat.ucsd.edu/~naomir/papers/wpmc2003_naomir.pdf - Similar pages

[PDF] [EDCF-DM: A Novel Enhanced Distributed Coordination Function for ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... When the collision rate is high, the contention window size of each flow will be changed slowly to avoid further collisions. When the higher priority ...

labs.ee.psu.edu/faculty/yener/papers/icc04_hao.pdf - Similar pages

[PDF] [Slide 1](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... collision avoidance (CSMA/CA). - Used During Contention period (CP) ... off is repeated and CW (contention window) is doubled ...

www.coe.montana.edu/ee/rwong/EE560/final%20projects/vo-wlan.pdf - Similar pages

[Wiki - Main - Z25Paper7](#)

... increasing the initial contention window size and inter-frame space for ...

Let window-increasing factor change with the backoff stage when collision ...

dncds.xwiki.com/xwiki/bin/view/Main/Z25Paper7 - 23k - Cached - Similar pages

[PDF] [SCW: Sliding Contention Window for Efficient Service ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Contention Window (SCW) that allows selecting backoff counter ... based on the actual average collision rate. The recently proposed ...

www.prism.uvsq.fr/~ana/natae_wenc05.pdf - Similar pages

[PPT] [TCP for Mobile and Wireless Hosts](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... IEEE 802.11 DCF: contention window cw is chosen dynamically depending on collision occurrence. 43. Binary Exponential Backoff in DCF ...

www.cs.binghamton.edu/~kang/cs580s/mac.ppt - Similar pages

[PDF] [Collision-Minimizing CSMA and Its Applications to Wireless Sensor ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... transmission in one round of contention, its latency is . If there is a collision, ... but increases the contention window size using bounded expo- ...

nms.lcs.mit.edu/papers/tay_et_al-jeac04.pdf - Similar pages

[DOC] [Chapter 8](#)

File Format: Microsoft Word 2000 - [View as HTML](#)

... Since collision detection is not efficient for wireless channel, a mechanism to avoid ... Due to this reason, it is called as contention window (CW). ...

facweb.cs.depaul.edu/ashmad/tcc597/802.11MAC.doc - Similar pages

[PPT] [Coordinated Network Scheduling: A Framework for End-to-End Service](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Dual contention window: modulate aggressiveness according to estimated rank

... Suppose that the third packet is seriously delayed due to collision or ...

www-oid.ece.rice.edu/~knightly/talks/EPFL.ppt - Similar pages

[PDF] [CRMA: a Novel Multiple Access Protocol for Power Efficient ...](#)

File Format: PDF/Adobe Acrobat

... the initial size of the Contention Window by assuming a ... a high collision probability. In high-congested conditions ...

[doi.ieeecomputersociety.org/10.1109/AINA.2005.146](#) - [Similar pages](#)

[PDF] [Analyzing and Improving the IEEE 802.11-MAC Protocol for Wireless LANs](#)

File Format: PDF/Adobe Acrobat

... with collision avoidance that applies a rotating, backoff, window mechanism. ... early in the contention window since this small backoff ...

[doi.ieeecomputersociety.org/10.1109/MASCOT.1998.501018](#) - [Similar pages](#)

[802.11 MAC layer](#)

... Multiple Access/Collision Avoidance) NOTE: Classic Ethernet uses CSMA/CD ...

The transmit window allows for the ACK ie **CONTENTION** period starts after ...

[www.zytrax.com/tech/wireless/802_mac.htm](#) - 26k - [Cached](#) - [Similar pages](#)

[PDF] [IEEE 802.11e Contention-Based Channel Access \(EDCF\) Performance ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... on Carrier Sense Multiple Access with Collision Avoidance. (CSMA/CA). ...

Each station maintains a contention window (CW), which ...

[www.iks.inf.ethz.ch/education/ss04/seminar/21.pdf](#) - [Similar pages](#)

[PDF] [Title of paper in 14 standard font and bolded](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... and a collision occurs, the contention window is doubled, and a new backoff procedure is started. This process continues until the successful ...

[atnac2003.atcra.com/CRALS/WALL.pdf](#) - [Similar pages](#)

[PDF] [Long Distance Wireless Communication Principally satellite ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... added optional feature: CA (collision avoidance). Two modes for MAC operation:

... If due to timeout, double contention window (CW) ...

[www.cs.purdue.edu/homes/park/cs422-wireless-2.pdf](#) - [Similar pages](#)

[PPT] [Random Access Control in Wireless Networks](#)

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... collision -> Failure of a transmission and the need for retransmission ...

the station exponentially increases the maximum contention window size, CW, ...

[www.cs.purdue.edu/homes/wu/HTML/talk/cs690.ppt](#) - [Similar pages](#)

[PDF] [Analysis of IEEE 802.11 Distributed Coordination Analysis of IEEE ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... contention window sizes of different traffic. of different traffic ...

Packet Collision Rates. p. 1,2. Minimum Contention Window Sizes W ...

[qofis.ccaba.upc.edu/pdf/QoFIS2004.pdf](#) - [Similar pages](#)

[PDF] [GU LAYOUT](#)

File Format: PDF/Adobe Acrobat

... off time, in the range of 0 to contention window. (CW). The backoff timer decrements the backoff ... to reduce the possibility of collision by selecting ...

[ieeexplore.ieee.org/iel5/35/27123/01204758.pdf?arnumber=1204758](#) - [Similar pages](#)

[PDF] [MAC-PHY enhancement for 802.11b WLAN systems via cross-layering ...](#)

File Format: PDF/Adobe Acrobat

... of contention and collision. On the other hand, when, RTS/CTS is applied,

802.11 MAC is ... PHY state of the Contention Window. Indeed, together with ...

[ieeexplore.ieee.org/iel5/5004/23569/01285126.pdf?arnumber=1285126](#) - [Similar pages](#)

[PDF] [Achieving Service Differentiation and High Utilization in IEEE 802.11](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... As already discussed, after each collision the contention window CW is doubled, until it reaches an upper bound CWmax. Backoff times are set to a ...

[www.ics.forth.gr/netlab/publications/2003.TR322.st_802.11.pdf](#) - [Similar pages](#)

[PDF] [IEEE 802.11 A technical Overview](#)

File Format: PDF/Adobe Acrobat

... CW=Contention Window. Defer Access. Backoff after Defer. NAV. (RTS). (CTS).

Previous Page ... Real Collision detection would require a full- ...

[www.sse-mag.com/pdf/80211p.pdf](#) - [Similar pages](#)

[PDF] [Wireless Systems](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Solve: How to do carrier sense and collision detection? ... The Contention Window is divided into time slots. The length of each slot is medium ...
www.tic-ing.unife.it/staff/milzeik/WirelessSystem_4.pdf - Similar pages

[PDF] [A New Backoff Algorithm for the IEEE 802.11 Distributed ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... contention window is dynamically controlled by the Binary Ex- ... window (CW. max.) after a collision occurs and resets its CW to ...

www.ecs.syr.edu/research/SensorFusionLab/Downloads/Jing%20Deng/Amild_cnds04.pdf - Similar pages

[United States Patent Application: 0050070317](#)

... If the transmission is not successful, then a contention window ... it is relatively more expensive to recover from a collision (eg two or more nodes ...
appft1.uspto.gov/i.../intel&RS=AN/inie! - 50k - Cached - Similar pages

[PDF] [QoS Enhancement in IEEE802.11 Wireless Local Area Networks](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... (Contention Window). The backoff timer. decrements the backoff time each time the medium ... to reduce the possibility of collision by selecting a ...

www.merl.com/reports/docs/TR2003-67.pdf - Similar pages

[PDF] [EVALUATION OF EDCF MECHANISM FOR QoS IN IEEE802.11 WIRELESS NETWORKS](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Access with Collision Avoidance) protocol, and it is. best known for asynchronous data transmission (... This is done by setting the contention window ...

www.merl.com/reports/docs/TR2003-51.pdf - Similar pages

[PDF] [Microsoft PowerPoint - jaseem-icupe-2002.ppt](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Collision detection is difficult in radio environment. - Stations may interfere from other ... random back-off time within a contention window [0, CW] ...

www.ee.ryerson.ca/~jaseem/pub/jaseem-icupe-2002.pdf - Similar pages

[Smac-users] [Contention Window Size in SMAC](#)

[Smac-users] Contention Window Size in SMAC ... the code doesn't increment the cw sizes on a collision or decrement them on a successful transmsion. ...

manisl.edu/pipermail/smuc-users/2004-August/000063.html - 3k - Cached - Similar pages

[PDF] [IMPACT OF TURNAROUND TIME ON WIRELESS MAC PROTOCOLS](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... A slotted contention window for channel acquisition occurs. after each ACK.

... collision and make no transmissions. A new contention win- ...

wireless.nmsu.edu/hf/papers/mac_turnaround_corrected.pdf - Similar pages

[PDF] [How Good Is Fluid Model-based Simulation For Simulating IEEE ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... contention window. The backoff timer is decreased as long as the ... a busy period that is composed of a sequence of collision periods fol- ...

www.scs.org/acsarchive/getDoc.cfm?id=1970 - Similar pages

[PDF] [Early Multicast Collision Detection in CSMA/CA Networks](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... contention window. If at least two of the access points ... window but mostly because the collision is detected much. earlier. ...

www.cs.umu.se/kurser/TD8D03/VT03/paper4.pdf - Similar pages

[PDF] [Microsoft PowerPoint - 11-Zhao.ppt \[Read-Only\]](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Due to collision, info may never reach the destination. bottle neck link ...

Hash-controlled access with slotted contention window: ...

spacecom.grc.nasa.gov/ionsconf/docs/2004/G7_session_b3/B3-11-Zhao.pdf - Similar pages

[PDF] [Enhanced routing-aware adaptive mac with traffic differentiation ...](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... contention window, when collision occurs or the medium. is sensed to be busy.

We believe that this will help in bet- ter tuning the channel access and ...

www.ifi.fr/RD2P/download/nk2004.pdf - Similar pages

[doc] [Simple and Efficient Multiple Access](#)

File Format: Microsoft Word 6 - [View as HTML](#)

... Since the Initialization Request message is transmitted during the contention window, it may experience collision and may be corrupted before reaching ...

home.knology.net/ieee80214/802_14/95-136.doc - Similar pages

[PDF] Modeling and Analysis of Slow CW Decrease for IEEE 802.11 WLAN

File Format: PDF/Adobe Acrobat - [View as HTML](#)

... Since the contention window doubles, after each collision, we can write W ...
special case, since after a collision the contention window ...

icapeople.epfl.ch/iaad/publ/pimrc2003.pdf - Similar pages

ETD-db: ETD database

... the backoff parameters of its collision avoidance mechanism are hard-wired
... and the size of Contention Window (CW) is set again to the minimum value ...

ethesys.lib.fcu.edu.tw/ETD-db/ETD-search/view_etd?URN=eid-0105105-153631 - 6k - Cached - Similar pages

[PPT] «Performance Analysis for a New Medium Access Control Protocol I ...

File Format: Microsoft Powerpoint 97 - [View as HTML](#)

... Multiple Access as well as handshaking mechanisms for collision avoidance (CA)
... a back off time period, based on the current Contention Window size. ...

www.telecom.fuc.gr/.../presentations/Performance%20Analysis%20for%20a%20New%20Medium%20Access.ppt - Similar pages

Google

Result Page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [Next](#)

Free! Get the Google Toolbar. [Download Now](#) - [About Toolbar](#)

Google -	<input type="text"/>		Search web -		PageRank		3 blocked		AutoFill		Options
----------	----------------------	---	--------------	---	----------	---	-----------	---	----------	---	---------

collision contention window

Search

[Search within results](#) | [Language Tools](#) | [Search Tips](#) | [Dissatisfied? Help us improve](#)

[Google Home](#) - [Advertising Programs](#) - [Business Solutions](#) - [About Google](#)

©2005 Google